



March 18, 2016

Marlene H. Dortch, FCC Secretary
Office of the Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: RM-11681 Petition for Rulemaking to Allocate 1675-1680 MHz Band for Terrestrial Mobile Use; Ex Parte Submission in IB Docket No. 12-340

Dear Secretary Dortch:

On behalf of the National Hydrologic Warning Council (NHWC), I am writing to urge you to safeguard current public safety uses of the 1675-1680 MHz spectrum band that specifically includes the Geostationary Orbiting Environmental Satellites (GOES) and the forthcoming GOES-Series-R satellites, which receive and transmit hydrologic data to ground receiving/downlink stations from thousands of sensors throughout the United States and its territories.

The NHWC is specifically concerned with the delivery of real-time streamgage data and other crucial hydrologic and meteorological information that provides high flood risk communities throughout the United States and its territories with situational awareness and decision support during flood emergencies. The National Oceanic and Atmospheric Administration's (NOAA) National Weather Service also heavily relies on this data for issuing life-saving flood warnings to the public.

Ground receiving stations reliant on this real-time data are operated and funded by the U.S. Geological Survey (USGS), the U.S. Army Corps of Engineers, the U.S. Bureau of Reclamation, and many regional, state and local water resources and flood control agencies. Across the nation, federal and non-federal agencies work closely together in collecting, sharing, and analyzing this hydrologic data to reduce loss of life, injuries, property damage, school and business closures, and post-flood recovery costs.

Reliable, accurate, and timely data is imperative for flood warnings, emergency management, operational hydrologic models, water supply management, reservoir operations, and recreation safety. Anything less than real-time information transmitted via the GOES and GOES-R satellites using this spectrum will threaten these important public safety activities. We believe the risk of radio frequency interference from sharing this spectrum with commercial terrestrial broadband towers, which are many times stronger than the weak signals relayed via these satellites from space, is a significant threat to the continuing operation of this service.

NHWC membership includes approximately 80 state, regional, and local jurisdictions, and flood warning system support companies¹, representing over 30 million people in some of our nation's most populous and flood prone areas. NHWC is a trusted authority in public safety with a reputation of helping communities recognize flood threats and other water-related hazards in time to take appropriate defensive measures to protect lives and property.

¹ The Federal agency members had no direct role in producing this letter.



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With flooding being the highest risk hazard in the U.S. with average flood damages of \$8 billion and 80+ deaths per year over the past 30 years (2014 dollars), NHWC members are attuned to the crucial nature of their work and the importance of the timeliness of the streamgauge information they rely on.

Timely Hydrologic

Information

Protects Lives,

Property, and

the Environment

In addition, emergency managers, first responders, public works officials, engineers, flood control districts, river authorities, reservoir operators, environmental agencies, local news media, and many others rely heavily on GOES radio frequencies (and will rely upon GOES-R frequencies post launch in 2016) to collect real-time hydrologic data and disseminate urgent warning information. Without this time sensitive information, it would not be possible for these people and their public safety organizations to fulfill critical missions related to floods, hurricanes, droughts, dams, levees, tsunamis and other hydrologic hazards.

These users of real-time flood information and the vast numbers of citizens and decision makers who rely on their flood communications cannot risk delayed delivery or loss of this information. Unacceptable delays or losses would result from interference in this band that has not been appropriately accounted for in Ligado/New LightSquared planning, as noted in their filings.

Flooding and drought accounts for a significant amount of the billion dollar weather disasters as tracked and reported by NOAA². The Data Collection System (DCS) data relayed by GOES/GOES-R satellites are an essential contribution to reducing the impacts of these flooding and drought events.

We understand that the proposed high power commercial wireless services are likely to interfere with the low power GOES-R satellite transmissions to ground receiving stations, especially since these stations will not likely be subject to protection zones. Manufacturers of receiving equipment have concerns that interference to such strong signals at 1680 MHz will be nearly impossible to mitigate at 1679-1680.4 MHz for the GOES DCS.

We respectfully request that the FCC:

1. delay the comment process on this proceeding. Given the vast array of citizens that could be impacted by these decisions, due to their potential impact on public safety, it is important that there be appropriate communication with the full range of citizens and industry segments impacted before this decision is made. The FCC cannot automatically assume that hydrological users are watching the proceedings for Federal frequency actions for a satellite that is about to go into operation that will relay water and flood data. Entities that depend upon the warnings may or may not be aware of the use of 1675-1680 MHz on GOES-R to convey this data;
2. provide protection and priority for the GOES-R satellite downlink 1675-1680 MHz spectrum band;

**National Hydrologic
Warning Council**

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² Billion-Dollar Weather and Climate Disasters. National Centers for Environmental Information. NOAA. <http://www.ncdc.noaa.gov/billions/overview>



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3. require a "prove-it-will-work" period of several years showing that high-power commercial wireless service systems can safely co-occupy the nationally critical hydrometeorological spectrum without interrupting GOES downlink services; and
4. require a clear and fair process between the wireless service companies and the impacted federal and non-federal agencies for resolving spectrum use conflicts when they arise.

Thank you for the opportunity to express our concerns on this important issue on behalf of the hydrologic warning community and the millions of citizens we serve.

Sincerely,

A handwritten signature in blue ink, which appears to read "Steve Fitzgerald".

Steve Fitzgerald, P.E.
President, National Hydrologic Warning Council

cc:

NTIA Administrator Lawrence Strickling

USGS Director Suzette Kimball

U.S. Army Corps of Engineers Commanding General and Chief of Engineers Lieutenant General Thomas P. Bostick

Bureau of Reclamation Commissioner Estevan López

NOAA Administrator Kathryn Sullivan

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